abstract

Evaluation of Image-Defined Risk Factors in Neuroblastoma: A 6-Month Retrospective Analysis at a Tertiary Care Hospital

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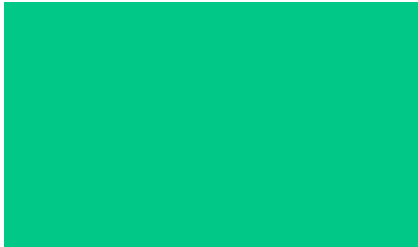**Author: Maham Ashraf**

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Introduction: Neuroblastoma is a common extracranial solid tumor in children. Imaging plays a crucial role in identifying risk factors impacting prognosis, surgical management and treatment. Objective is to evaluate image-defined risk factors in Neuroblastoma patients presenting to our tertiary care hospital over 6 months.

Methodology: Retrospective review of imaging studies (PAN CT) of neuroblastoma patients (ages 0-18) from January-June 2024. Image-defined risk factors assessed: tumor size, location, invasion into surrounding structures, metastatic disease, intraspinal extention and encasement of vessels.

Results: 25 patients (ages 0-18) with neuroblastoma
– IDRFs present in 15 (60%) patients
– Common IDRFs: spinal canal invasion (40%), vascular encasement (32%), neck and mediastinum involvement (28%)
– Metastatic disease: bone (56%), bone marrow (40%), liver (20%)
– Correlation between IDRFs and poor prognosis ($p < 0.05$)

Conclusion: Image-defined risk factors predict poor prognosis in neuroblastoma. Radiologic assessment of IDRFs is essential for risk stratification and treatment planning.